

MODELING, IDENTIFICATION AND CONTROL

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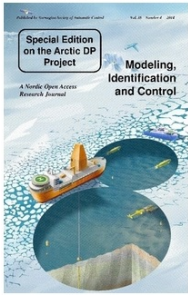
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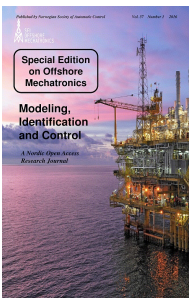
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The number of articles in each issue will vary, but the number of pages in each issue will never be less than 32.

EDITORIAL



In December 2014 a special edition of MIC was published with the title 'Special Edition on the Arctic DP project'. The edition contained 9 papers summarising the main results from the project led by Department of Marine Technology at NTNU. MIC encourages research projects like Arctic DP to use the MIC journal as a publication channel. MIC is an Open Access journal and also the only technical-scientific journal in Norway. The alternative for large Norwegian research projects would be to spread out the publications in several different foreign journals and conferences, making it more difficult for someone who is interested to collect and study the results from a larger project. Large research centres such as the SFI, SFF and FME schemes in Norway are particularly encouraged to use MIC to disseminate results.



The research centre SFI Offshore Mechatronics was officially started on April 1, 2015. Every year until 2023 this SFI will organise an annual conference, and the ambition is to publish and present yearly results in a special edition of MIC in connection with this conference. In addition to the centre's own results, related research from outside the centre will be invited to contribute. Vol 37, No. 1 is the first special edition on 'Offshore Mechatronics'. The first paper in this edition is titled 'Hydraulic vs. Electric: A Review of Actuation Systems in Offshore Drilling Equipment' and is the result of an Industrial-PhD project in collaboration between the SFI partners MHWirth AS and the University Agder (UiA). This work is relevant to the SFI work-package 1 called Drives.

The second paper titled 'Modular System Modeling for Quantitative Reliability Evaluation of Technical Systems' is a publication from the SFI partner Department of Mechanical Engineering at RWTH Aachen and contains modeling work related to work-package 5 Monitoring Techniques. The third paper is titled 'Automated Kick Control Procedure for an Influx in Managed Pressure Drilling Operations' and is co-authored by researchers in the SFI partners International Research Institute of Stavanger (IRIS), National Oilwell Varco (NOV), UiA and Statoil. The fourth paper is titled 'Model-Free Predictive Anti-Slug Control of a Well-Pipeline-Riser' and is written by researchers outside the SFI - from the University College of Southeast Norway. The fifth paper is a result from work-package 2 Motion Compensation. The title of the paper is 'Tracking a Swinging Target with a Robot Manipulator using Visual Sensing'. The sixth and last paper presents related results from outside the SFI. The title of this paper is 'Inverse Kinematics for Industrial Robots using Conformal Geometric Algebra'.

The MIC special edition on Offshore Mechatronics will be printed and handed out at the annual conference taking place on May 10-11, 2016 at UiA, Campus Grimstad.

Geir Hovland
April 18, 2016
Editor